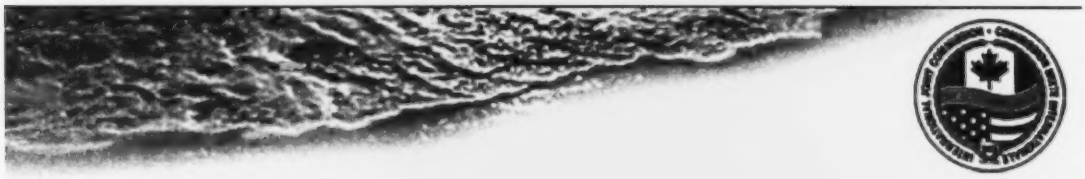


FOCUS

on International Joint Commission Activities

les activités de la Commission mixte internationale

International Joint Commission
Spring 2009
Volume 34, Issue 1

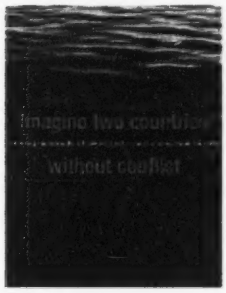
June 5 to June 14
Boundary Waters Week in Niagara

The Niagara region Boundary Waters Treaty Centennial Committee has announced a program of activities for Boundary Waters Week in Niagara that includes a full week of cultural, musical, and educational programming, throughout the region, including an entire day of free programming Saturday June 13. Highlights of the week, which features more than 40 events and activities throughout Niagara on both sides of the border, include musical performances by the Great Lakes Swimmers, Sarah Harmer, Donna the Buffalo, and a joint performance by the Niagara

1909-2009
BOUNDARY WATERS TREATY
TRAITÉ DES EAUX LIMITROPHES

Youth Orchestra and the Greater Buffalo Youth Orchestra; *Waterbody*, a dance composition commissioned for the event, a boat dance in the Buffalo River; a model International Joint Commission simulation exercise for university students; an environmental fair; two conferences on the cleanup of the Niagara River and a public meeting on the Niagara River cleanup plans to date organized by the IJC; and a series of hikes and paddles in the gorge and throughout the region. A complete list of details is available at www.oursharedwaters.com.

"It is significant that we are celebrating the centennial of the treaty here as the Niagara River is one of only two geographic regions referred in the Treaty, which covers boundary waters from the Atlantic to the Pacific" said IJC Commissioner Sam Speck.



Niagara Falls will be the backdrop to an historic event on Saturday, June 13, 2009 when the IJC meets with the Niagara 10 Leaders and others to celebrate the centennial of the Boundary Waters Treaty which created the IJC at a ceremony on the Rainbow Bridge above the Niagara River. Details about this special event will be announced closer to the date.

New Centennial Website Launched

To recognize the 100th Anniversary of the Boundary Waters Treaty which created the International Joint Commission (IJC), the IJC has launched a new "Centennial" website (http://bwt.ijc.org) with a searchable database of its reports and orders of approval from 1914 to the present. The docket database with digital versions of 100 years of original IJC documents is searchable by region and keyword.

The IJC launched its new website in conjunction with World Water Day, which in 2009 focused on the world's 263 transboundary lake and river basins. The Boundary Waters Treaty created the IJC and set principles to guide the United States and Canada in managing the fresh waters they share. The Treaty has been cited by others as a model for the development of other transboundary water agreements worldwide.

"With the launch of this website, the International Joint Commission has created a significant resource of information about how it helps prevent and resolve disputes under the Boundary Waters Treaty of 1909," said Herb Gray, chair of the IJC's Canadian Section.

"We hope that others can gain insights from a century of cooperation between the United States and Canada so that our unique relationship notre can become the standard for sustainable transboundary water sharing and use," said Irene Brooks, chair of the IJC's U.S. Section.

"I can attest that the models and approaches that the IJC has pioneered and implemented over the years have contributed not only

to 100 years of peaceful and productive management of U.S.–Canadian shared water resources, but have informed collaborations in often tense basins around the world," said Aaron T. Wolf, director of the Program for Water Conflict Management at Oregon State University.

In the website, narratives and historical photos highlight the role of the Treaty and the IJC in nurturing cooperation between Canada and the United States.

Boundary Waters Treaty Centennial Celebrated at Three Conferences

Early in 2009, IJC commissioners participated in three conferences that included celebrations of the centennial of the Boundary Waters Treaty. The first event was a daylong symposium held at Wayne State University (WSU) in Detroit Michigan hosted by the WSU Law School, the *Wayne Law Review* and the University of Windsor. Support for the event was provided by the Government of Canada and the WSU Student Council.

Held on February 5, 2009, the WSU "Boundary Waters Centennial Symposium" featured nationally and internationally renowned environmental law experts and was highlighted by the participation of the commissioners and both section secretaries. Organizers of the symposium referred to the Treaty as "perhaps the most important bilateral agreement in Canada–U.S. relations," and participants focused on the history of the Treaty, its relevance today and the role it might play in the future. Speeches by the Commissioners at the event are accessible at the centennial website: http://bwt.ijc.org. Selected proceedings from the symposium are expected to be published in the *Wayne Law Review*.

The second event was the 25th annual conference of the Canada United States Law Institute (CUSLI) held at Case Western Reserve University School of Law in Cleveland, Ohio and co-sponsored by the Faculty of Law, University of Western Ontario, in London, Ontario. This prestigious conference, which focused on trade, security and environmental issues and included high level officials from both countries, celebrated the Treaty and IJC at its closing dinner on April 4th.

Held in Montreal, April 19–23, the 16th International Conference on Aquatic Invasive Species recognized the 100th anniversary of the Boundary Waters Treaty with a keynote luncheon address from the Canadian Chair, the Rt. Hon. Herb Gray, on not only the treaty but the IJC's work over the last 20 years on the issue of AIS. This included the IJC's recent recommendation of a binational rapid response policy framework to deal with policies and institutional arrangements that affect our region's ability to respond quickly to the discovery of a new aquatic invasive species, which was presented in detail during one of the conference sessions. Commissioners also moderated two of the plenary sessions of this conference of which the IJC is a sponsor.

Nearshore Work Highlight of Biennial Great Lakes Priorities

The IJC's Great Lakes Priorities Cycle for 2007–2009 is drawing to a close and officially ends on Sept. 30. Nearshore waters have been the focus of Commission work group activities over the past year and a half. These working groups were established to review issues and develop recommendations in six key areas:

- eutrophication;
- chemicals of emerging concern;
- beach closures;
- rapid response to alien invasive species;
- new information regarding fish consumption advisories; and,
- design of a frameowkr that governments can use to address nearshore issues.

Each group is co-chaired by representatives of the IJC's Great Lakes Science Advisory Board and the Great Lakes Water Quality Board. The groups also have members from the Council of Great Lakes Research Managers, the International Air Quality Advisory Board and the Health Professionals Task Force. The reports of these IJC-created groups will be discussed at the next Biennial Meeting and Great Lakes Conference in Windsor, Ontario on October 7–8. Following public input and additional discussion, this priority work will ultimately help shape the Commission's 15th Biennial Report on Great Lakes Water Quality planned for 2010.

As part of this process, the groups have been holding a variety of specialized meetings. For example, in January 2009, the Commission co-sponsored the Great Lakes Urban Habitat Restoration Symposium in Chicago, partnering with nearly a dozen other organizations. More than 150 scientists, planners, policymakers, and other experts were at the two-day event, which had a number of objectives: improve understanding of science and techniques available for restoration, increase partnerships to advance restoration projects, communicate the needs, recommendations and prioritization to those who implement cooperative agreements, and elevate funding priority for urban nearshore and riverine areas.

In February, our Working Group on Eutrophication held a workshop at the University of Windsor, where more than two dozen researchers and managers shared their understanding and hypotheses about the causes and consequences of re-eutrophication and started framing recommendations for action.

In March, our Working Group on Chemicals of Emerging Concern hosted an expert consultation at EPA Region 5 headquarters in Chicago. Thirty-eight experts from Canada and the United States convened to review a draft report on exposure data for a wide array of chemicals, including synthetic musks, flame retardants, pesticides, pharmaceuticals and personal care products. The objective is to produce recommendations that can be incorporated into chemical management regimes in both countries.

Finally, as noted in the article about the International Conference on Aquatic Invasive Species *(see page 5)*, an IJC working group has developed an aquatic invasive species rapid response framework.

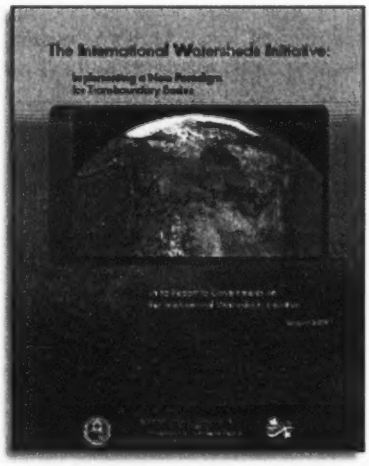
Commission Provides Advice to Governments Regarding Electric Energy Generation and Transboundary Air Quality

Building on its long history of involvement in transboundary air quality issues, the Commission released a comprehensive report "Meeting our Electrical Energy Needs to 2030: A Review of Energy and Environmental Factors" prepared by an ad hoc expert advisory committee. Composed of representatives from industry, government, academia and public interest groups, the committee had been established by the Commission's International Air Quality Advisory Board (IAQAB) to examine environmental factors associated with the production of electrical energy and help develop useful recommendations for action at all levels of government.

In transmitting the report to the governments, the Commission also provided a supplemental assessment by the IAQAB and noted that the transboundary region can be a model for addressing Canada–U.S. air quality concerns. Such initiatives might include: programs to manage the demand for energy and increase the market share of other generation technologies; development and construction of full-scale demonstration projects to accelerate the development of zero emission technologies; and, reconfiguration of an operational major coal fired facility to achieve extensive sequestration of carbon dioxide emissions. President Obama and Prime Minister Harper, in remarks following their meeting in Ottawa in February, touched on some of the same issues raised in the report, such as those relating to carbon sequestration and the development of a more efficient power transmission and distribution system between Canada and the U.S.

Third International Watersheds Initiative Report Released

In March 2009, the IJC released *The International Watersheds Initiative: Implementing a New Paradigm for Transboundary Basins*. This third report to the governments of Canada and the United States on the International Watersheds Initiative (IWI) summarizes accomplishments and recommends next steps to build local capacity for implementing a watershed approach along the international boundary.



The IWI promotes an integrated, ecosystem approach to issues arising in transboundary waters through enhanced local participation and strengthened local capacity within the mandate of the Boundary Waters Treaty. The underlying premise is that local people, given appropriate assistance, are best positioned to resolve many local

transboundary problems.

The objective of the IWI is to facilitate watershed-specific responses to emerging challenges such as urbanization, changing climate, increasing demands of water users, pollution from air and land sources, and introductions of invasive species. With this approach, the Commission is committed to addressing transboundary basin issues by engaging all sectors and stakeholders, employing new technologies and developing ways of sharing information. For example, the IWI is helping harmonize maps and hydrographic datasets in these international basins. *(See article on Data Harmonization below)*

The IJC is committed to applying this integrated watershed paradigm from coast to coast to fulfill more effectively its mandate of preventing and resolving transboundary water disputes. The report is available at www.ijc.org and printed copies may be requested *(see Contact Us)*.

Transboundary Data Harmonization Efforts Gain Momentum

The Transboundary Hydrographic Data Harmonization Task Force, first convened by the IJC in July 2008 *(see Focus, Fall 2008)*, is making significant progress in developing a binational, coordinated approach to geospatial datasets covering watersheds along the international boundary. Five federal agencies are currently participating in the Task Force: Agriculture & Agri-Food Canada, Environment Canada, Natural Resources Canada, the U.S. Environmental Protection Agency and the U.S. Geological Survey.

Coordination has proceeded to an unprecedented degree on two fronts — *hydrography* and *drainage areas* — which are closely related but involve distinct data formats and expertise. In the context of geospatial information systems (GIS), *hydrography* refers to the computerized representations of rivers, streams, lakes and other water features. *Drainage areas* indicate contiguous areas (basins or containers) where surface waters converge and collect. The Task Force has set up binational technical groups for hydrography and drainage areas to make sure that the two countries' respective national datasets — Canada's National Hydrographic Network (NHN) and the U.S. National Hydrographic Dataset (NHD) — match more precisely where the national boundaries meet.

To accomplish this goal, first, the NHN and NHD data are compared in a strip within 100 meters (328 feet) on each side of the boundary. Then, any water features that do not align properly are connected and redrawn, following agreed guidelines, by binational technical teams. The newly delineated hydrographic features are then sent back to the responsible agencies in each country for incorporation into the NHN and NHD. Names and categories of hydrologic features are also harmonized. As a pilot project, Canadian and U.S. datasets covering the Pembina River basin (part of the Red River basin) were harmonized.

The drainage area harmonization group, which met in Regina, Saskatchewan, in February 2009, agreed on an analogous process for comparing and reconciling the NHN and NHD delineations of

containers or basins that cross the international boundary. In this work, scale is an issue. The group determined that it would be more meaningful to focus on the meso-scale, i.e., 1:24,000 – 1:50,000 delineations. The relevant containers in the U.S. Watershed Boundary Dataset have 8-digit identification codes, and those in Canada's Fundamental Drainage Areas have 4-digit codes. The area slated for harmonization is therefore referred to as the US8-CAN4 swath. The group agreed on protocols for merging container information from each country within this swath and a process for reporting the harmonized containers back to each country, so that the respective U.S. and Canadian agencies can update their national datasets. The group also made a preliminary pass through the data swath, identifying existing areas of congruence, areas where more work is required, and the level of effort and resources required, with a recommended timeline.

Harmonization of the drainage areas will proceed in phases. After the US8-CAN4 areas are reconciled and the hydrographic features within them harmonized, more detailed work will be required to further refine the drainage areas into higher-resolution, topographically-based drainage area accounting units. Participation of provincial and state agencies and other local partners will be critical in this subsequent phase.

The ultimate goal of this exercise is to provide water resource managers and planners at the local level with datasets and maps at a useful scale that connect seamlessly across the boundary. Using a common dataset should help in providing more comparable hydraulic and hydrological modelling results and reduce potential disagreements on study findings. This fully linked hydrography data network also will enable the use of existing automated tools that will provide more accurate stream statistics and knowledge about the basincharacteristics.

The IJC has spearheaded data harmonization as part of the International Watersheds Initiative, beginning with a 2007–08 pilot exercise in the St. Croix River basin. *(See Focus, Summer 2008).*

Scientific report detailing St. Clair River impacts on upper Great Lakes water levels released for public comment

For the past two years, as part of the IJC's International Upper Great Lakes Study, more than 100 U.S. and Canadian scientists and engineers have worked together to address these challenging questions about the St. Clair River system flowing from Lake Michigan–Huron to Lake Erie:

- Has the conveyance or water-carrying capacity of the St. Clair River changed, and if so, why? What effect could an altered flow have on water levels in the upper Great Lakes?
- What other factors may be affecting the change in the water levels?
- What actions, if any, should be taken by governments to remedy concerns about low water levels?

The answers are now coming into focus. The draft report, *Impacts on*

Upper Great Lakes Water Levels: St. Clair River, the first of two reports by the IJC's bi-national International Upper Great Lakes Study Board, was released on May 1st, 2009 for public review and comment.

Key preliminary findings:

1. The difference in water levels between Lake Michigan–Huron and Lake Erie has declined by 23 centimetres (cm) (9 inches) between 1962 (the time of the last major dredging in the St. Clair River) and 2006.
2. Three key factors have contributed to this decline:
    - A change in the *conveyance capacity* of the St. Clair River accounts for 10 to 12 cm (3.9 to 4.7 inches); a relatively dramatic and rapid change in conveyance appears to have occurred in the mid-1980s, possibly resulting from a single event, such as a major ice jam in the river.
    - Changes in *climatic patterns* account for 9 to 27 cm (3.5 to 10.6 inches); this factor has become even more important in recent years, accounting for an estimated 75 percent of the decline between 1996 and 2005.
    - *Glacial isostatic adjustment* (the rebounding of the earth's crust after the melting of the glaciers about 10,000 years ago) accounts in general for 4 cm (about 1.6 inches), but varies greatly throughout the basin

(Determining the total decline is not as simple as adding up the estimates of the three contributing factors. These estimates are highly dependent on the choice of the specific time period being analyzed within the 1962–2006 timeframe. However, the lower-bounded numbers provide a good approximation.)

3. There has been no ongoing erosion of the St. Clair River bed since at least 2000.
4. Remedial measures on the St. Clair River are not warranted at this time, given the preliminary findings and the Study's mandate. However, climate change has emerged as a critical but uncertain factor in the future of the upper Great Lakes, and deserves further study.

Study Board recommendations:

- Remedial measures not be undertaken on the St. Clair River at this time. (Typically, remedial measures address past changes to the system.)
- The need for mitigative measures in the St. Clair River be examined as part of the comprehensive assessment of the future effects of climate change on water supplies in the upper Great Lakes basin in Report 2 of the Study, on Lake Superior regulation. (In this context, mitigation refers to measures that address expected future changes.)

For More Information or to Comment on the Draft Report

If you are interested in reviewing the draft of the Study's full scientific

report on the St. Clair River, or want to attend a public meeting on the Study being held in your area, please visit the website of the International Upper Great Lakes Study for more information: www.iugls.org.

If you would like to comment on the Draft Report, comments can be submitted using the form at the website or via email to the Study Board at comments@iugls.org. Comments can also be provided in writing to either of these addresses:

International Upper Great Lakes Study
234 Laurier Ave. W., 22nd Floor
Ottawa, ON K1P 6K6

International Upper Great Lakes Study
2100 Commonwealth Blvd., Ste. 100
Ann Arbor, MI 48105-1563

Public Meeting Locations

In addition to meetings held in May in Grosse Pointe Farms, MI; Owen Sound, ON; Sarnia, ON; Cleveland, OH; Evanston, IL; Thunder Bay, ON; and Little Current, ON, there will be public meetings at the following sites where Study experts will provide details about their findings and recommendations regarding the St. Clair River issue (including impacts on eastern Georgian Bay), answer questions and receive public comment.

June 9, 2009

Annis Water Resource Institute
740 W. Shoreline Drive
Muskegon, MI 49441
7:00 – 9:00 p.m.

Charles W. Stockey Center, Theatre
Two Bay St.
Parry Sound, ON P2A 1S3
7:00 – 9:00 p.m.

Algoma University,
Great West Life Amphitheatre
520 Queen St East
Sault Ste. Marie, ON P6A 2G4
7:00 – 9:00 p.m.

June 11, 2009

North Simcoe Sports and Recreation Centre,
Community Hall A
527 Len Self Boulevard
Midland, ON L4R 5N6
7:00 – 9:00 p.m.

Northwestern Michigan College

Oleson Center 112
1701 East Front St.
Traverse City, MI 49686
7:00 – 9:00 p.m.

Wisconsin Indianhead Technical College
Superior Conference Center
600 North 21st Street
Superior, WI 54880
6:00 – 8:00 p.m.

Delta College Planetarium & Learning Center
Space Explorer Hall
100 Center Ave.
Bay City, MI 48708
7:00 – 9:00 p.m.

Additional meetings may be scheduled, so please check www.iugls.org for current information. After incorporating public comments and the results of additional research, the Study Board will finalize the report for transmission to the International Joint Commission in the fall of 2009.

Funded equally by the U.S. and Canadian governments, the draft report was prepared by the bi-national, independent International Upper Great Lakes Study Board at the request of the International Joint Commission under the authority of the Boundary Waters Treaty.

This report is the first output of the Study, created by the IJC, which will continue to examine whether the regulation plan for outflows from Lake Superior through the compensating works and power dams on the St. Marys River at Sault Ste. Marie might be improved to take into consideration environmental and other interests and a changing climate. The final report of the Study is expected early in 2012.

Lyall Knott appointed as Canadian Commissioner to the International Joint Commission

The International Joint Commission is pleased to welcome Lyall D. Knott, a senior partner of Vancouver-based law firm Clark Wilson LLP, as a Canadian commissioner to the International Joint Commission. Born and raised in Vancouver, Mr. Knott earned a Bachelor of Commerce degree in 1971, and Bachelor of Laws degree in 1972, both from the University of British Columbia. He earned a Master of Laws from the University of London, England, in 1973, and in 1985 he was appointed to the rank of Queen's Counsel. In addition to having a broad base of experience with both public and private corporations, Mr. Knott has an extensive background and understanding of the workings of government.

Contact Us

The IJC is interested in your views on our activities. You may contact us the following ways:

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Bernard Berckhoff Public Affairs	Frank Bevacqua Public Affairs	Vacant Public Affairs
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Allen I. Olson Commissioner, United States Section	Lyall D. Knott Commissioner, Canadian Section
Sam Speck Commissioner, United States Section	Pierre Trépanier Commissioner, Canadian Section

Last update: 14-12-2009